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**THE RESPONSE SENSITIVITY OF PHYSIOLOGICALLY EXTRAOCULAR SIGHT  
PERCEPTION TO LIGHT OF FOUR DIFFERENT KINDS OF WAVELENGTHS**

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We knew earlier that, in normal ocular sight perception, light of different wave lengths produces different response sensitivity, and from this we constructed the sight spectrum sensitivity curve. The recent reports of some authors [1] show that physiologically extraocular sight perception, just like normal ocular sight perception, is also capable of producing different sensations of color for light of different wave lengths. What then, with respect to extraocular sight perception and light of different wavelengths, is the difference in the degree of response sensitivity? This essay utilizes the methods of psychology and physics to make a rough comparison of the corresponding values of the response sensitivity of physiological extraocular sight perception to light of four different kinds of wave lengths (636 Mmu, 560 Mmu, 491 Mmu, and 452 Mmu). The results show that the extraocular sight perception of the tested persons by us have different response sensitivity to the light of four different kinds of wave lengths. Due to the limits of the test, the contents of this report can only be used as qualitative observation material; the data in this report have no quantitative significance.

**METHOD**

1. For a diagram of the equipment used in the experiment see diagram one. The monochromatic light meter shown in the diagram is a WDS-J2 model; the light source was a 30W filament bulb; we made our own collimator to establish the relative value of the capacity of the light wave lengths generated by the monochromatic light meter. We regulated the intensity of each monochromatic light by a neutral light filter placed between the light source and the point where the light entered the monochromatic light meter.

2. The standard we used for selecting the wavelengths is: the freshest sense of color, and the greatest distance between the wave lengths. We did this in order to diminish discrepancies in the test. Based on this, we selected four kinds of wave lengths, a red color of 636Mmu, a yellow of 560 Mmu, a green of 491 Mmu, and a blue color of 452 Mmu, for use in our survey.

3. The test process: The test began by having the test proctor randomly select one kind of light from among the four kinds of wave lengths described above and by placing a neutral light filter between the illuminating lamp of the monochromatic light meter and the point where the light enters the monochromatic light meter. Following this, the test proctor had the person tested place an extraocular part of the body (the palm of the hand) at the point where the light exits the monochromatic light meter and thereby start the extraocular "recognition" until the person tested becomes aware of the sense of color, whereupon the person tested reported this awareness to the proctor. Finally, the above described process was repeated while the proctor steadily diminished the transparency of the neutral light filter until the person tested said that the sense of color had ceased. At this point, the proctor recorded the wave length being tested and the transparency rate of the neutral light filter. This transparency rate was then designated the threshold transparency rate  $\epsilon$ .  $\epsilon$  and the corresponding relative value of the light wave length were multiplied and inverted to produce the corresponding value of the sensitivity response of the person tested's extraocular sight sensitivity to the wave length of this light. Once the proctor obtained the corresponding values of the sensitivity response for all four wave lengths, the test was completed.

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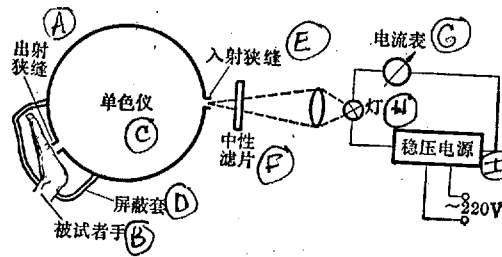


Diagram 1: A diagram of the principal equipment used in the experiment.

- A. Point where light exits the monochromatic light meter.
- B. The hand of the person being tested.
- C. The monochromatic light meter.
- D. The covering (for the tested person's hand).
- E. Point where light enters the monochromatic light meter.
- F. The neutral filter.
- G. The electricity gauge.
- H. The lamp.
- I. The electricity stabilizer.

In order to prevent the tested person's normal ocular vision from interfering with the test process, [the area] from the point where the light exits the monochromatic light meter to the tested person's extraocular body part (the palm of the hand) was enclosed in a covering.

Participating in the test were two young girls, Miss Li (ten years old) and Miss Miao (also ten), both of whom possess extraocular sight perception.

#### Results and Discussion

1. The relative value of the two tested persons' sensitivity response to light of four different wavelengths is as follows:

Miss Li's relative sensitivity value for light of a wave length of 636 Mmu was 3%; for wave length 560 Mmu, 22%; for wave length 491 Mmu, 51%; and for wave length 452 Mmu, 81%.

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Miss Miao's relative sensitivity value for light of a wave length of 636 Mmu was 4%; for wave length 560 Mmu, 8%; for wave length 491 Mmu, 24%; and for wave length 452 Mmu, 38%.

Diagram 2 shows the above described results of the relationship between wave length and sensitivity.

From the test results we can clearly see that the two tested persons' extraocular sight perception of light of four different wave lengths had different sensitivity responses. Among the four kinds of light, the tested persons were most sensitive to the blue light of 452 Mmu, and next most sensitive to the green light of 491 Mmu; but least sensitive to the red light of 636 Mmu.

2. Comparing the above described results to the spectrum sensitivity curve of physiologically normal sight perception we can see that: the extraocular sight perception of the two tested persons had different sensitivity responses to light of four different wavelengths; moreover, the wave length to which the two tested persons were most sensitive was also different. Normal ocular sight perception during daylight is most sensitive to light of 550 Mmu but, during evening, most sensitive to light of 505 Mmu. Normal ocular sight perception can deal with pale green light whereas extraocular sight perceptions more sensitive to blue light than to pale green.

Differences in the degree of sensitivity of normal ocular sight perception to light of different wave lengths is determined by the special light sensing characteristics of the tiny light sensing cells in the sclera. Because of this, the part that produces these differences is the primary sensing organ in the whole vision perception system. How are differences in the degree of sensitivity to the light spectrum of extraocular sight perception constructed? In which part of this system are these produced? These are problems worth our consideration.

This test informs us that light of different wavelengths is capable of producing different perceptions of color. The problem of color perception, however, is an even more complex problem. The recognition of color information in physiologically normal ocular vision is not only related to the special characteristics of the organs of light perception but also related to the special processing characteristics of the optical nerve system to color information. At present, according to some authors, these two special characteristics of normal ocular sight perception are explained by the three colors theory of Yangyi-xiamu-huerci [phonetic] and the four colors theory of Xylene [phonetic]. While testing extraocular sight perception, we discovered that "ocular sight" and "extraocular sight" have the same sense of color with regard to the same kind of color information (regardless of whether the color is monochromatic or polychromatic). This leads us to think that perhaps between them "ocular sight" and "extraocular sight" have a similar transmitting and processing channel for color information. Our present experiment, however, tells us that their response to the light spectrum is not quite similar and this leads us to think that their color information transmitting and processing channels are also different as well. In that case then what relationship do these two "sight perception" systems have in receiving, transmitting, and processing spatial color information? This is also worth our consideration.

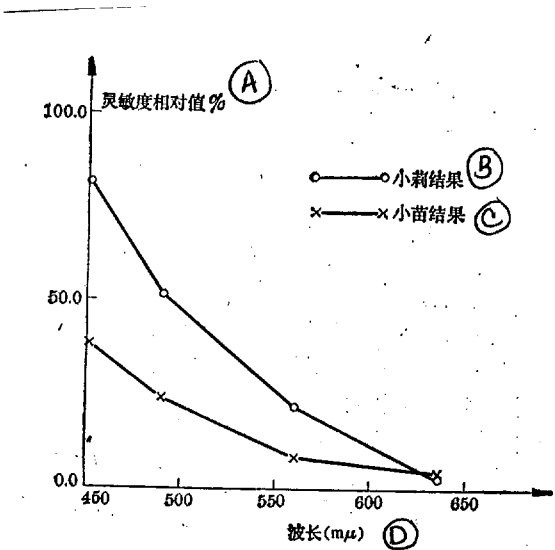
3. This experiment only compared extraocular sight perception sensitivity with respect to light of four kinds of wave lengths. Although we can see differences in the degree of sensitivity, we have not however obtained a most sensitive light wave length value. We suggest that the appropriate

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work units can continue with this work in order to complete the curve for spectrum sensitivity of extraocular sight perception.

4. The relative value for the monochromatic light meter's spectrum used in the present experiment was obtained using a standard produced by an illuminator of our own manufacture. Although this illuminator was previously checked for accuracy, that was some time ago and therefore the results produced by this experiment are only for qualitative use. We take the opportunity here to call the reader's attention to this point.

[1] Wang Shengli, et al "Nature Magazine,"3(1980) 336



- A. Relative value of the degree of sensitivity given as a percentage.
- B. The results for Miss Li.
- C. The results for Miss Mial.
- D. Wave length (Mmu).

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**THE SECOND PLENUM OF THE COMMITTEE OF THE RESEARCH ASSOCIATION OF CHINESE PHYSIOLOGICAL SCIENCES (PREPARATORY) CONVENES IN SHANGHAI**

Author: Qin Yue

The Second Plenum of the Committee of the Research Association of Chinese Physiological Sciences convened in Shanghai on November 9, 1981. Twenty six committee members from twenty four provinces, cities, and autonomous areas attend the plenum. The committee passed three documents: "(Draft) Regulations of the Research Association of Chinese Physiological Sciences," "Essential Notes of the Committee," and "A Report Concerning a Recommendation That an Organization of National Science Committees Undertake Experimental Verification of Physiologically Unique Skills."

Looking back at the work done over the last half year, the committee acknowledged that, under the leadership and concern of party committees at each level, and with the support of the science committees and associations of each area, and due to the efforts of science and technology workers, the work situation of the Research Association of Physiological Sciences is excellent; and the preparatory plans for local research associations at every level have made progress. The committee decided to convene, at an appropriate time in 1982, at a specialized scholarship symposium to discuss physics, biology, inner strength [trans. note: "qigong," a branch of traditional Chinese medicine] and their relationship to unique skills, how they tie into unique skills, and other aspects.

Committee delegates proceeded to analyze the question of society's denial of the true nature of physiologically unique skills. The delegates recognized that it is a good thing and not a bad thing to use explanations from different branches of learning to debate a new science because only by repeated, rigorous, learned debate together with strict experimental verification can we rid ourselves of falsehood and find truth, distinguish between right and wrong, and cause research work to progress healthily in the correct direction. However, the plenum and each individual delegate recognize that they are unable to accept the view that these skills are "unscientific," a view based on the fact that the phenomenon of physiologically unique skills is difficult to explain using present scientific theories. Nor can they accept the lumping of physiologically unique skills together with feudal superstitions and the "soul only theory" of the philosophic idealists. The committee sees this attitude as incompatible with objective real conditions and especially harmful to the future progress of China's scientific undertakings.

The committee pointed out that, since the March 1979 discovery of the phenomenon of "reading words with the ears," the whole country has continued to discover many children with this kind of ability. Moreover a good many science and technology workers have proceeded with a large number of experimental investigations the results of which show that physiologically unique skills objectively exist. The phenomenon of physiologically unique skills cannot even today be fully explained by conventional scientific theories. This clearly shows the scientific need for and importance of proceeding with this research work. Using scientific methods to research this phenomenon and striving to explain it directly opposes feudal superstition and also thoroughly destroys the fundamental methods of superstition. At the moment, the debate centers on whether "reading words with the ears," this kind of physiologically unique skill, really exists or not. The best way to resolve this debate is through scientific experiments. Therefore, the committee proposed that, under the leadership of the national science committees, formal experimental proofs of the real nature of "reading words

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with the ears" be organized. A debate that departs from scientific experiment is of no value.

The committee reiterated that research work on physiologically unique skills must be conducted under the leadership of the party; must be guided by Marxist theory in order to uphold the methods and universal views of dialectical materialism; must guard against and resist fully the incursions of idealist thought, and must proceed unrelentingly to battle feudal superstitions and all kinds of anti-Marxist thought and behavior.

The committee seeks to have the broad mass of scientific workers base their work on strict, rigid scientific experiments and, starting with the most fundamental research work, be prepared to spend years or even tens of years completing one or two key experiments that will be fully acknowledged by both domestic and foreign scientists.

The committee selected He Chongyan as chairman of the preparatory committee, and Long Wenyu, Ye Zhaoqi, Wu Xicai, Lin Shuhuang, Su Yin (female), and He Chongyan as members of the standing committee (together with one other individual), and Zhu Runlong as committee secretary.

Each committee delegate acknowledges that this plenum convened at the most opportune moment, collected a broad spectrum of opinion, clarified thinking, standardized our knowledge, strengthened our unity, completed the establishment of our organization, and achieved satisfactory results. Everyone said sincerely that, although the road before us is difficult, nevertheless the future of research on physiologically unique skills is bright.



型是正确的话,那么表面增强喇曼散射是一种对表面很敏感的效应,而且吸附分子必须直接位于一个清洁的表面上,中间不允许存在氧化物或其他沾污层,否则就会大大降低信号的强度。这个模型也可以解释为什么用银作基体时增强最大,因为银是好的自由电子气金属。这个模型还预计信号强度与 $\omega_L$ 的四次方成正比。这个模型立足于吸附分子与基体的靠近,但最近有些实验表明,单纯的靠近不足以引起如此大的增强,吸附分子与基体间的化学键合起着更重要的作用。

## 2. 金属表面电荷密度调制模型

这个模型的主要思想是,振动着的吸附分子对金属表面的电荷密度产生一种调制作用,这种作用或者是通过振动分子与金属基体间的库仑电场而发生,如图5(a)所示;或者是通过化学键中所包含的电子云的振动而发生,如图5(b)所示。金属表面电荷密度的这两种调制,都相当于吸附分子-金属集合体的极化率的一种调制,由此产生喇曼散射增强效应。(a)、(b)两个模型的主要区别在于:模型(a)对应的是长程力,因此它比较偏向于物理吸附,而在模型(b)中化学键合起着重要作用,因此它比较偏向于化学吸附。从模型(a)出发,再加上电子倒逆过程,把波矢比较大的项也考虑进去,可以解释6个数量级的增强因子,也可以解释连续背景谱的存在。模型(a)预计喇曼信号强度随 $\omega_L$ 的改变要比四次方律更强(这与实验结果不符),模型(b)则预计喇曼信号强度与 $\omega_L$ 无关。

镜像电场模型和金属表面电荷密度调制模型都认为,如果吸附分子在自由的时候对某一 $\omega_L$ 是共振的,那么吸附以后这种共振效应仍然起作用,另外再加上吸附引起的增强,这与实验事实相符。

## 3. 吸附感生的共振模型

这类模型认为,分子吸附到基体上会感生共振,这种感生共振通过吸附分子与基体间的直接作用而发



图 5 金属表面电荷密度调制模型

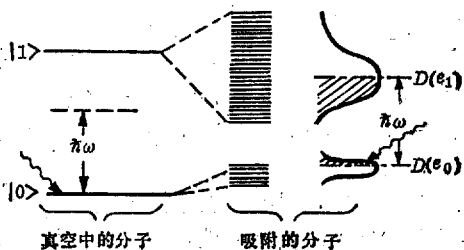


图 6 吸附感生的共振模型

生,或者通过表面等离子激元而发生,或者通过吸附分子与基体的合成物而发生。我们以一个最简单的情况来说明第一种情况,如图6所示(其余两种情况可以类推)。在图6中,设一个自由分子的初态为 $|0\rangle$ ,终态为 $|1\rangle$ ,能量为 $\hbar\omega$ 的入射光子不能与这种分子发生共振,如图6的左边所示。当这个分子吸附到基体上以后,由于分子与基体间的库仑场作用,造成电子能级的移动和加宽,如图6的右边所示,两个连续分布的电子态密度 $D(e_0)$ 和 $D(e_1)$ 代替了原来的 $|0\rangle$ 态和 $|1\rangle$ 态,正是这种畸变,使两个能带间的光激发成为可能,从而产生共振喇曼散射。这类模型可以解释喇曼信号强度随 $\omega_L$ 的复杂的变化规律,也可以解释为什么银的效果最显著,但这类模型尚未定量地计算增强因子。

## 4. 共振吸收模型

这个模型的主要思想是,金属中的自由电子气通过集体的方式共振吸附入射光子,并通过与吸附分子振动模式的耦合产生喇曼散射的增强效应,我们用图7来简要地作些说明,图中的圆斑代表一个金属粒子(粗糙表面),它周围的粗短线代表吸附分子,金属粒子彼此紧密地堆积在一起,以致一个粒子的振荡会耦合到邻近的粒子上,即粒子间有一个集体的行为,如图7中的波纹线所示。正是这种集体行为使金属电子气的简正模式发生频移和加宽,并决定了光的共振吸收能够出现的能量。如果入射辐射的光子能量与这个共振能量相一致,则光子与电子气之间的耦合就被增强,在这个条件下,如果有一个与吸附分子发生耦合的机构,那么就会出现增强的喇曼散射。有人认为这种耦合机构也就是库仑场,就是说电子集体模式的激发与吸附分子之间的相互作用表现在作用到吸附分子上的局部电场的增强,这种局部电场的增强导致入射辐射对吸附分子激发的增强,从而导致吸附分子喇曼散射的增强。在这个模型里,金属的表面粗糙度是一个关键的因素,要是有一个实验证明了在原子规模的光滑表面上也可以得到增强效应,这个模型就会立即破产,但迄今还没有发表过这样的实验结果,这种模型可以解释喇曼信号强度随 $\omega_L$ 的变化规律。

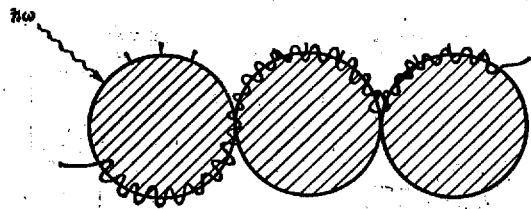


图 7 共振吸收模型

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# 人体非眼视觉对四种不同波长的光的反应灵敏度

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早已知道,在正常眼视觉中,不同波长的光有不同的反应灵敏度,因而构成了视见光谱灵敏曲线。近来据一些作者报道<sup>[1]</sup>,人体非眼视觉也能和正常眼视觉一样,对不同波长的光可产生不同的色感,那末,对非眼视觉来说,不同波长的光,它的反应灵敏度有何差异?本文利用心理——物理方法,粗略地比较了人体非眼视觉对四种不同波长的光(636mμ、560mμ、491mμ、452mμ)的灵敏度相对值。结果表明,我们所测量的被试者的非眼视觉,对这四种波长的光,有着不同的反应灵敏度。由于测量条件所限,本文所报道的内容仅作为定性的观察资料,文中数据均无定量意义。

## 方 法

1. 实验所用的设备原理图见图1,图中单色仪为WDS-J<sub>2</sub>型,光源为30W钨丝灯,单色仪所发出的光波长之能量相对值用自制亮度计标定,各种单色光的强度,由置于光源和单色仪入射狭缝间的中性滤光片调节。
2. 实验所用的波长的选择标准是:色感鲜明,各波长间的波长距尽可能大,以减少实验误差。据此,我们选择了分别为636mμ红色,560mμ黄色,491mμ绿色,452mμ蓝色四种波长进行测量。
3. 实验过程:实验开始由主试者随机调出上述四种波长中的一种光,并在单色仪的照明灯和入射狭缝间放置一定透过率的中性滤光片,随后令被试者非

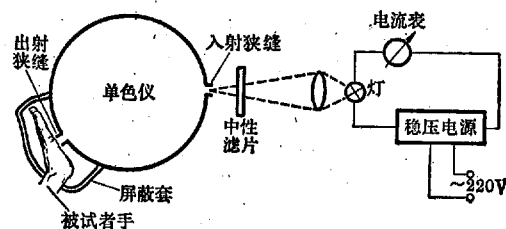


图1 实验装置原理图

眼视部位(手掌)放于单色仪的出射狭缝处,即行非眼视“感知”,至被试者出现色感,即向主试者报告,随后重复上述过程,并不断减少中性滤光片透过率,当被试者报告刚好无色感时,立即记录这时所测的光波长及中性滤光片的透过率,称这时的中性滤光片透过率为阈值透过率 $\eta_{\text{阈}}$ 。将 $\eta_{\text{阈}}$ 和与之相应的光波长能量相对值相乘并取倒数,即得出被试者非眼视对这个光波长的灵敏度相对值。当四个波长的相对灵敏度全部获得时,实验即告完毕。

为避免被试者正常眼视觉参与测量过程,从单色仪出射狭缝起,至被试者的非眼视部位(手掌),都处于封闭套中。

参加测试的为两名具有非眼视功能的女儿童,小莉(10岁)和小苗(10岁)。

## 结果与讨论

1. 两名被试者对四种不同波长的光的灵敏度相对值分别为:

被试小莉,对波长636mμ的光,灵敏度相对值为3%,对波长560mμ的光,灵敏度相对值为22%,对波长491mμ的光,灵敏度相对值为51%,对波长452mμ的光,灵敏度相对值为81%。

被试小苗,对波长636mμ的光,灵敏度相对值为4%,对波长560mμ的光,灵敏度相对值为8%,对波长491mμ的光,灵敏度相对值为24%,对波长452mμ的光,灵敏度相对值为38%。

图2为上述结果的波长-灵敏度关系图。

从结果可明显看出,两名被试者的非眼视觉,对四种不同波长的光,有不同的灵敏度,其中对452mμ蓝光最为敏感,对491mμ绿光则次之,对636mμ红光则最不敏感。

2. 将上述结果与人体正常眼视觉的光谱灵敏曲线比之,可看出,两者对不同波长的光都有其不同的灵敏度,但两者最敏感的波长,却不同。正常眼视觉



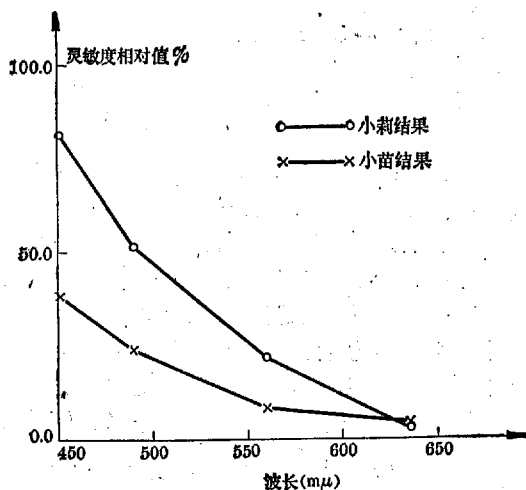


图 2

在日间视觉时对 550nm 的光最敏感，在夜间视觉时，对 505nm 的光最敏感，也即正常眼视觉的敏感波长处于黄绿光处，而非眼视觉对黄绿光却不如蓝光敏感。

正常眼视觉对不同波长的光的灵敏度差异是由眼睛视网膜上的感光细胞(即视杆细胞和视锥细胞)中的视色素的感光特性所决定的，因此产生这种差异的部位是在整个眼视觉系统的前级感受器上，非眼视觉的光谱灵敏度差异是怎样造成的？它产生在这个系统的那个部位上？这是值得我们探讨的问题。

本实验告诉我们，不同的波长光能产生不同的色感，但色感问题却是个更复杂的问题，在人体正常眼视觉中对色信息的辨认，既与光感受器的特性有关，还与视神经系统对色信息的加工特性有关，现代，据一些作者认为，正常眼视觉的这两种特性分别与杨一赫姆霍尔兹的三色说和赫林的四色说相对应。在非眼视觉的研究中，我们发现“眼视”和“非眼视”对同一种色信息(无论是单色的还是混色的)，有着同样的色感，这就不得不使我们想象，“眼视”和“非眼视”之间是否具有相同的色信息的传递和加工通道？但本实验却又告诉我们，它们的光谱灵敏度不尽相同，这又不得不使我们想象，这两者对色信息的传递和加工通道是不尽相同的。那末这两种“视觉”系统，在接收、传递和加工空间色信息方面究竟是什么样的关系呢？这也是值得我们研究的。

3. 本实验仅对四种光波长作了非眼视觉灵敏度的比较，虽然可以看到灵敏度的差异，但没有得到最灵敏的光波长值，我们建议有条件的单位可以把这个工作继续下去，测出非眼视觉的光谱灵敏度完整的曲线。

4. 本实验的单色仪光谱能量相对值，是使用自制亮度计标定的，该亮度计虽经过鉴定，时间较长，因此所得实验结果只能作定性参考。在此，我们再次提请各位读者注意。

[1] 王胜利等，《自然杂志》，3(1980) 336

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进行这次探测，他们组织了马克斯·普朗克研究所的科学家负责和参与研制这次探测用的所谓十大项目，即彩色照相机、尘粒冲击质谱仪、研究中性气体和离子用质谱仪、尘粒和离子质谱仪、两架等离子体分析器、光学尘粒测试仪、快速离子探测器、磁流计和高能粒子探测器，这些测量装置总重量为 54.4 公斤。他们计划于 1985 年 7 月 10 日用阿里安火箭向哈雷彗星发射“基奥托”号飞船。飞船经过 8 个月的飞行后，于 1986 年 3 月 13 日与哈雷彗星会合，那时飞船与彗星相距不到 1000 公里，与地球相距为 1 亿 5 千万公里。飞船主要测定彗星周围的气体 and 尘粒的化学组成及其物理性质，并第一次拍下彗核的照片。照片的总数约为 3600 张。

美国宇航局宇宙飞船和欧洲空间局“基奥托”飞船的飞行轨道见图 3。

日本将于 1985 年发射一个航天器“行星-A”与哈雷彗星相会合，这项新计划由以东京大学宇宙航空研究所为中心，使用该所研制的“M-35”的Ⅰ型火箭发射。

苏联将同法国合作发射“金星号”飞船，在对金星进行探测后，飞船离开金星于 1986 年与哈雷彗星相遇。

本文得到全和钧和周惠嫔同志的帮助，特此致谢。

- [1] Biermann L., *Mitteilungen der Astronomischen Gesellschaft*, 51 (1981) 37
- [2] Lüst R., *Naturwissenschaften*, 68 (1981) 229
- [3] Lüst R., *Naturwissenschaften*, 66 (1979) 217
- [4] Wallis M. K., *Nature*, 286, 5770 (1980) 207
- [5] Hughes D., *New Scientist*, 85, 1189 (1980) 66

## 中国人体科学研究会(筹)第二次全体 委员会议在沪举行

中国人体科学研究会(筹)第二次全体委员会议,于1981年11月9日在上海举行。24个省、市、自治区的26名委员出席了会议。会议通过了《中国人体科学研究会章程(草案)》、《会议纪要》、《关于建议由国家科委组织对人体特异功能进行实验验证的报告》等三个文件。

会议回顾了半年来的工作情况认为,在各级党委的领导和关怀下,在各地科委、科协的大力支持下,通过广大科技工作者的努力,人体科学研究工作的情况是好的,在筹组地方各级研究会方面也取得了进展。会议决定在1982年适当时期召开物理、生理、气功与特异功能关系、经络与特异功能的关系等方面的专业性学术讨论会。

与会代表对社会上否定人体特异功能真实性的问题,进行了分析。他们认为,对一门新的学科持有不同学术见解进行争论是好事而不是坏事,因为只有经过反复、严肃的学术争论和严格的实验验证,才能去伪存真、明辨是非,使研究工作沿着正确的方向健康发展。但是,全体与会代表一致认为,他们不能接受那种由于人体特异功能现象难以用已有的科学理论予以解释,便认为它是“反科学”的,并把人体特异功能研究跟封建迷信、唯心主义的“唯灵论”等混为一谈的看法。认为那种看法及作法不符合客观实际情况,尤其是不利于我国科学事业的发展。

会议指出,自1979年3月发现“耳朵识字”现象以来,全国相继发现许多儿童有这类功能,并有许多科技工作者对此进行了大量的实验研究,实验结果表

明人体特异功能是客观存在的。人体特异功能现象至今尚不能被已有的科学理论充分解释,这正从一个方面说明了进行这项研究工作在科学上的必要性和重要性。用科学的方法研究这一现象,并努力对它作出解释,正是为了反对封建迷信。也是彻底破除迷信的根本方法。当前争论的焦点在于“耳朵识字”这种人体特异功能是否客观存在。而解决这一争论的根本途径是科学实验。因此,会议建议在国家科委领导下,对“耳朵识字”的真实性组织正式的实验验证。离开科学实验的争论是毫无意义的。

会议重申,人体科学的研究工作必须在党的领导下进行,必须以马克思主义理论为指导,坚持辩证唯物主义的世界观和方法论,必须警惕和抵制形形色色的唯心主义思潮的侵袭,同封建迷信和一切反马克思主义的思想和行为进行不调和的斗争。

会议要求广大科技工作者要把工作的基点放在扎扎实实的严肃的科学实验上,要从最基础的研究工作做起,准备花几年以至几十年的时间,确立一、两项为国内外科学界公认的关键性实验事实。

会议选举了贺崇寅为筹委会主任委员,龙文字、叶兆麒、吴熙载、林书煌、苏音(女)、贺崇寅为常务委员(另保留一名),朱润龙为秘书长。

与会代表一致认为,这次会议召开得非常及时,集思广益,澄清了思想,统一了认识,加强了团结,健全了组织,获得了圆满成功。大家充满信心地说,尽管道路是曲折的,但人体科学研究的前景是光明的。

(沁悦)



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